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Ground-based and Airborne Telescopes IV

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Editors

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Introduction

The large number of submissions to and excellent attendance at the Ground-based and Airborne Telescopes IV conference reflects the strong and growing interest in the astronomical and engineering communities. More than 250 papers were submitted to this year's conference, the largest number in the series' history. This year's conference included 28 oral sessions and two poster sessions.

Good progress was reported on many ongoing and planned programs. Excellent invited papers were presented on ALMA, ASKAP, ATST, CTA, DCT, DOT, E-ELT, FAST, GMT, KDUST, LMT, LOFAR, LSST, MeerKAT, NST, SKA, SOFIA, and TMT.

The technical subjects covered in the papers are similar to previous conferences, with some evolution of emphasis. Papers were presented on many current and proposed optical-IR telescope projects, and attendance was strong as always in the session on the ELT projects. Many aspects of telescope design were covered, including structures and enclosures, control systems, active optics, thermal and vibration control, and alignment and control of segmented mirrors.

We heard reports on several solar telescope projects in two conference sessions, one of which was devoted to ATST. There were two sessions on airborne telescopes, with one devoted to SOFIA, which has recently started science operations. The increasing importance of survey telescopes was evident with two sessions devoted to telescopes for synoptic and survey observations. Another area of increased interest is gamma ray telescopes, which also had its own session at this conference.

Development of new radio telescopes remains a strong area, occupying one full day in the conference. The progress of SKA was reflected in a separate SKA session with four invited papers. Millimeter and submillimeter telescopes filled two sessions, with one session devoted to ALMA, which has started science operations this year.

It is clear that our understanding of the properties of astronomical sites is continuing to improve, and there is a growing interest in the design of telescopes to operate in extreme environments, particularly the Arctic and Antarctic. Another area of increasing interest is the design of telescopes to withstand earthquakes, with new approaches presented at the conference.

The chairs would like to thank the SPIE symposium organizers, the GB&AT program committee, the session chairs, the authors and all the conference participants for making this year's conference so successful.

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